

REMARKS

Claims 1 and 7 are pending in this application. Claims 1 and 7 are independent claims.

By this amendment, claims 1 and 7 are amended.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

The Claims Define Patentable Subject Matter

The Office Action rejects:

(1) Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by "Gain Programmable CATV Line Driver AD8321" Analog Devices, 1999 (hereafter Analog Devices); and

(2) claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Vorenkamp (of record) in view of Analog Devices.

These rejections are respectfully traversed.

Rejection under 35 U.S.C. §102(b)

Applicant respectfully submits that the claimed invention as set forth in claim 1 is distinguishable from the cited art, Analog Devices, for at least the following reasons:

For instance, the Examiner alleges that Analog Devices discloses a cable modem tuner comprising an upstream circuit including a gain controllable gain control circuit (attenuator core) in the Functional Block Diagram on page 1. Applicant respectfully disagrees with this allegation.

For example, Analog Devices merely discloses that the AD8321 (the digitally controlled variable gain amplifier) comprises a variable attenuator which is preceded by a low noise, fixed gain buffer and followed by a low distortion high power amplifier. The AD8321 accepts a differential or a single-ended input signal. (see Analog Devices, page 1).

Furthermore, Analog Devices discloses that the input signal into the AD8321 must be low-pass filtered before being applied to the line driving amplifier. (see Analog Device, page 8, under Applications).

In other words, the AD8321 in Analog Devices fails to disclose accepting a balanced data signal at its input, instead a differential or a single-ended input signal is input into the AD8321. Applicant submits that a balanced input data signal has equal impedance from both input terminals to reference whereas a differential input does not necessarily show equal impedance at both inputs.

Furthermore, the AD8321 in Analog Devices fails to disclose that the gain controllable gain control circuit receives the balanced data signal after its band has been limited by a balanced type bandpass filter. Instead, Analog Devices discloses that the input signal must be *low-pass filtered* before being applied to the AD8321. (see Analog Device, page 8, under Applications).

In the present invention, the up signal is input to a return pass signal input terminal 10, for example. The up signal is balanced data that has been subjected to quadrature phase shift keying from a QPSK transmitter and the data is

applied to an upstream circuit. In addition, the data has its band limited by a balanced type bandpass filter 4 included in the upstream circuit 20, and then input to a return pass amplifying circuit IC5. (see present specification, pages 7-8).

Furthermore, in the present invention two power amplifying circuits, e.g., 53 and 54, are being used. However, Analog Devices only use a single power amplifier in its AD8321.

For at least the reasons noted above, applicant respectfully submits that the present invention is distinguishable from Analog Devices' AD8321.

According to MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully submits that the Office Action has failed to establish the required *prima facie* case of anticipation because the cited reference, Analog Devices, fails to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claim 1 is allowable over Analog devices for at least the reasons noted above.

Accordingly, withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) is respectfully solicited.

Rejection under 35 U.S.C. §103(a)

Applicant respectfully submits that the claimed invention as set forth in claim 7 is distinguishable from the combination of Vorenkamp and Analog Devices for at least the following reasons:

As for the combination of Analog Devices and Vorenkamp, applicant submits that Vorenkamp fails to make up for the deficiencies noted above in Analog Devices' AD8321.

Like Analog Devices' AD8321, Vorenkamp also fails to teach or suggest accepting a balanced data signal at its input. Furthermore, Vorenkamp fails to disclose that the gain controllable gain control circuit receives the balanced data signal after its band has been limited by a balanced type bandpass filter.

For at least the reasons noted above, applicant respectfully submits that Vorenkamp fails to make up for the deficiencies found in Analog Devices.

Applicant respectfully submits that neither Analog Devices nor Vorenkamp, taken singularly or in combination, (assuming

these teachings may be combined, which applicant does not admit) teach or suggest the above noted features.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicant respectfully submits that the combination of Analog Devices and Vorenkamp fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claim 7 is allowable over the cited art for at least the reasons noted above.

Accordingly, withdrawal of the rejection of claim 7 under 35 U.S.C. §103(a) is respectfully requested.

Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Application No. 10/046,300
Amendment dated September 30, 2005
Reply to Office Action of July 1, 2005

Docket No.: 0033-0785P

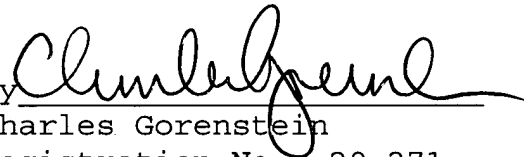
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Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 to schedule a Personal Interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

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